

(3 Hours)

Total Marks: 80

N.B.

1. Question No. 1 is Compulsory.
2. Attempt any **Three** Questions from remaining **Five** Questions
3. Assume Suitable Data if needed and Justify the Same
4. Figures to the right indicate full marks.

Que.1

- a) Explain Classification of corrosion [05]
- b) Write short note on Corrosion in acidic and alkaline process streams [05]
- c) Explain Cathodic process [05]
- d) Write short note on Concentration cells [05]

Que.2

- a) What is over potential and explain Concentration polarization [10]
- b) Explain in detail Corrosion in water and aqueous solution [10]

Que.3

- a) Explain Faraday's law [10]
- b) Give brief description of free energy [10]

Que.4

- a) Explain determination of rates of galvanic corrosion [10]
- b) Explain Electrochemical Reactions [10]

Que.5

- a) Explain in detail Nernst Equation [10]
- b) Write Functions and role of a corrosion engineer [10]

Que.6

- Write short note on
- a) Corrosion Prevention [20]
 - b) Crevice Corrosion
 - c) Erosion corrosion
 - d) hydrogen damage
